

## **REMARKS**

As a preliminary matter, Applicant notes that the Examiner neglected to initial one of the references listed on the Information Disclosure Citation (Form PTO-1449) filed with the April 6, 2007 Information Disclosure Statement (IDS). Since this appears to be an inadvertent error, Applicant respectfully requests that the Examiner initial the box next to the "Introduction to Algorithms" publication listed in the "Other Documents" section of the form, and that the Examiner forward a copy of the initialed form to Applicant's representative at the address of record. If there was another reason for not initialing the box, Applicant respectfully requests an explanation in the next communication from the Examiner.

As an additional preliminary matter, Applicant has added new Claims 9-11, which are apparatus claims that are each directed to a shared memory type scalar parallel computer that includes the following physical, hardware components: a plurality of processors; plural units of cache memory provided for respective ones of said processors; plural units of shared memory that are shared among the processors; and an interconnection network for connecting said processors, the shared memory units and the cache memory units. Applicant respectfully submits that the subject matter of new Claims 9-11 is statutory subject matter under 35 U.S.C. §101 because it is directed to a new and useful machine that operates in a certain manner.

The Examiner objected to the Specification for allegedly failing to provide proper antecedent basis for the claimed subject matter. More specifically, the Examiner asserted on page 2 (paragraph 1) of June 5, 2008 Office Action that the "computer readable medium" defined in Claims 5-8 is not disclosed in the original specification.

In response, Applicant has added the term “computer readable medium” to page 42 of the Specification. Applicant respectfully submits that the original Specification describes the present invention to include a program that is implemented by a computer. Applicant further submits that one of ordinary skill in the art would be aware that such programs are commonly stored on a computer readable medium. In light of the amendment to the Specification, Applicant respectfully requests the withdrawal of this objection to the Specification.

Additionally, Applicant respectfully submits that the term “computer readable medium storing a program” is intended to cover only physical, tangible mediums, such as magnetic tapes, magnetic disks, magneto-optical disks, optical disks, etc., and that it is not intended to cover signals carrying a program. In other words, Applicant hereby disclaims any interpretation that includes signals, which, as determined by the Court of Appeals for the Federal Circuit in In re Nuijten, 500 F.3d 1346 (Fed. Cir. 2007), are not statutory subject matter.

Claims 1-8 stand rejected under 35 U.S.C. § 101 as allegedly being directed to non-statutory subject matter. Applicant respectfully traverses this rejection.

Applicant respectfully submits that the claims at issue define statutory subject matter because they define a particular apparatus, and not merely an abstract idea, and due to the use of that particular apparatus, they do not encompass every substantial practical application of an abstract idea in a very similar manner to certain claims of Ex parte Wasynczuk (Appeal No. 2008-1496, Application No. 09/884,528), which was published in an Informative Opinion of the Board of Patent Appeals and Interferences on June 2, 2008 (copy attached).

More specifically, in Ex parte Wasynczuk, the Board determined that Claim 9 was directed to statutory subject matter under 35 U.S.C §101 because Claim 9 “recite[s] a process that employs one of the other statutory categories [a machine]”, and that the apparatus is not simply a generic computing device, but is instead “a particular apparatus.” *See id.*, page 22. More specifically, Claim 9 referred to a “first physical computing device” and a “second physical computing device.” *Id.* Such physical devices were enough to render Claim 9 statutory “[b]ecause the claim recites a particular apparatus, (1) the method operates on another class of statutory subject matter such that the method is a patentable “process,” and (2) the method is not directed to an abstract idea. Unlike in *Benson*, this claim is directed to a particular machine implementation of the mathematical algorithm that does not encompass every substantial practical application of the abstract idea. *Benson* 409 U.S. at 71-72.” *Id.* The Board found Claim 9 to be directed to statutory subject matter for the reasons set forth above, even though the Board also determined that the claimed computer-simulated physical system is not “a real world thing.” *See id.*, page 21.

Similarly, Applicant respectfully submits that Applicant’s Claims 1-8 are also statutory subject matter under 35 U.S.C §101 because these claims recite a process that employs one of the other statutory categories (i.e., a machine), and because the cited apparatus is not simply a generic computing device, but is instead “a particular apparatus.” More specifically, Applicant’s independent Claims 1 and 5 each recite a very particular type of computing device (“a shared memory type scalar parallel computer”), as well as the inclusion of a memory area and multiple processors. In fact, new Claims 9-11 are even explicitly directed to a particular machine (“A shared memory type scalar parallel

computer) that includes the following physical components: “a plurality of processors; plural units of cache memory provided for respective ones of said processors; plural units of shared memory that is shared among said processors; and an interconnection network for connecting said processors, said shared memory units and said cache memory units.”

Applicant respectfully submits that the claimed shared memory type scalar parallel computer and the other physical components defined in the Applicant’s claims define an even more “particular” apparatus than the first and second physical computing devices of Ex parte Wasynczuk. Thus, Applicant further asserts that for the same reasons that the Board determined that Claim 9 in Ex parte Wasynczuk was statutory, the claims of the present application are also statutory because the claims recite a “particular” apparatus, and thus: (1) the method operates on another class of statutory subject matter such that the method is a patentable “process,” and (2) the method is not directed to an abstract idea. Further, Applicant also submits that because of the use of the particular apparatus defined in the claims, the claims at issue do not encompass every substantial practical application of the abstract idea.

Finally, Applicant also respectfully submits that the claims at issue are directed to statutory subject matter (for the reasons set forth above), even if the Examiner determines that the claimed method of obtaining an inverse matrix is not “a real world thing,” for the same reasons that the Board determined that Claim 9 of Ex parte Wasynczuk was statutory, even though the Board determined that the computer-simulated physical system in that case was not “a real world thing.”

For at least the reasons stated above, Applicant asserts that the claims are directed to statutory subject matter, and Applicant requests withdrawal of the § 101 rejection of Claims 1-8.

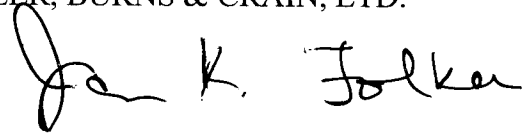
Additionally, as mentioned in earlier responses, Claims 5-8 recite “a computer readable medium storing a program.” Applicant respectfully submits that the §101 rejection should be withdrawn because these claims include functional descriptive material (i.e., a computer program which imparts functionality when employed as a computer component) recorded on a computer readable medium. *See* MPEP §2106.01 (“When functional descriptive material is recorded on some computer-readable medium, it becomes structurally and functionally interrelated to the medium and will be statutory in most cases since the use of technology permits the function of the descriptive material to be realized.”); MPEP § 2106.01(I) (“a claimed computer-readable medium encoded with a computer program is a computer element which defines structural and functional interrelationships between the computer program and the rest of the computer which permit the computer program’s functionality to be realized, and is thus statutory.”). Thus, the §101 rejection of Claims 5-8 should be withdrawn for this reason as well.

For all of the foregoing reasons, Applicant requests reconsideration and allowance of the claimed invention. Should the Examiner be of the opinion that a telephone conference would aid in prosecution of the application, or that outstanding issues exist, the Examiner is invited to contact the undersigned attorney.

Respectfully submitted,

GREER, BURNS & CRAIN, LTD.

By

A handwritten signature in black ink, appearing to read "Ja K. Folker". The signature is written in a cursive, flowing style.

James K. Folker

Registration No. 37,538

**Customer No. 24978**

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300 South Wacker Drive

Suite 2500

Chicago, Illinois 60606

Telephone: (312) 360-0080

Facsimile: (312) 360-9315

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